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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,135	03/12/2004	Hidenori Usuda	9319G-000738	6913

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EXAMINER

PEGGINS, KRISTAL J

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,135

Applicant(s)

USUDA, HIDENORI

Examiner

K. Feggins

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/12/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

With regards to Claim 12, claim 12 does not contain any new limitations not presented in claim 11

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 & 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa (US 6,257,685 B1)

Ishikawa discloses the following claimed limitations:

- * regarding claims 1 & 8, a liquid drop ejecting device/600/ (Abstract, fig 12a)
- * a liquid drop ejecting head device/12b/ which is provided with a liquid drop ejecting head for ejecting a liquid drop (col 1, lines 14-26, 46-60, fig 12b);
- * a controlling device/625/ which transmits a record datum which determines whether or not the liquid drop is ejected from the liquid drop ejecting head device (col 3, lines 48-60, fig 12b)

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* a driving waveform/jet pulse signal/ for driving the liquid drop ejecting head, wherein the liquid drop ejecting head device is provided with a storage section which stores a part of the record datum or an entire record datum (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, figs 2, 4-9).

* regarding claim 2, wherein the liquid drop ejecting head device controls the liquid drop ejecting head according to the driving waveform which is transmitted from the controlling device and the record datum which is stored in the storage section (col 4, lines 33-36, 42-58, col 7, col 8, lines 1-56, figs 2, 4-9).

* regarding claim 3, wherein the controlling device transmits a part of the record datum or an entire record datum to the liquid drop ejecting head device before the liquid drop ejecting head device ejects the liquid drop such that the record datum be stored in the storage section (col 4, lines 33-36, 42-58, col 7, col 8, lines 1-56, figs 2, 4-9).

* further regarding claim 8, a storage section which stores a part of the record datum or an entire record datum which determines whether or not the liquid drop ejecting head should eject the liquid drop (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, figs 2, 4-9).

* regarding claim 9, a method for ejecting a liquid drop from a liquid drop ejecting head which is provided in the liquid drop ejecting head device (Abstract, fig 12b);

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* transmitting a driving waveform for driving the liquid drop ejecting head to the liquid drop ejecting head device (col 4, lines 33-36, 42-58, col 7, col 8, lines 1-56, figs 2, 4-9, 12b).

* reading out the record datum from the storage device which is disposed in the liquid drop ejecting head device for determining whether or not the liquid drop should be ejected (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, col 7, col 8, lines 1-56, figs 2, 4-9).

* driving the liquid drop ejecting head device according to the driving waveform and the record datum (col 4, lines 33-36, 42-58, col 7, col 8, lines 1-56, figs 2, 4-9).

* regarding claim 10, the step for writing the record datum in the storage device. (col 4, lines 33-36, 42-58, col 7, col 8, lines 1-56, figs 2, 4-9, 12b).

* regarding claim 11, a method for manufacturing a device (Abstract)

* a step for ejecting the liquid drop by using the liquid drop ejecting device (col 1, lines 14-26, 46-60, fig 12b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa (US 6,257,685 B1) in view of Igarashi (US 2005/0078134 A1)

Ishikawa discloses the following claimed limitations:

- * regarding claim 5, a liquid drop ejecting device (Abstract, fig 12b);
- * a liquid drop ejecting head device which is provided with a liquid drop ejecting head for ejecting a liquid drop (col 1, lines 14-26, 46-60, fig 12b);
- * a controlling device which transmits a record datum which determines whether or not the liquid drop is ejected from the liquid drop ejecting head device
- * a driving waveform for driving the liquid drop ejecting head, wherein the liquid drop ejecting head device is provided with a storage controlling section which reads a part of the record datum or an entire record datum to from (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, col 7, col 8, lines 1-56, figs 2, 4-9);
- * regard claim 5, a storage device and/or writes a part of the record datum or an entire record datum to a storage device (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, col 7, col 8, lines 1-56, figs 2, 4-9);
- * regarding claim 6, wherein the liquid drop ejecting head device controls the liquid drop ejecting head according to the driving waveform which is transmitted from the controlling device (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, col 7, col 8, lines 1-56, figs 2, 4-9).

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* further regarding claim 6, the record datum which is read from the storage device by the storage controlling section (col 4, lines 33-36, 42-58, col 7, col 8, lines 1-56, figs 2, 4-9, 12b).

* regarding claim 7, wherein the controlling device transmits a part of the record datum or an entire record datum to the liquid drop ejecting head device before the liquid drop ejecting head device ejects the liquid drop such that the record datum be stored in the storage device by the storage controlling section (col 4, lines 33-36, 42-58, col 5, line 30-66, col 6, line 18-67, col 7, col 8, lines 1-56, figs 2, 4-9).

Ishikawa does not disclose the following claimed limitations:

* regarding claim 4, wherein the liquid drop ejecting head device is provided in the liquid drop ejecting device so as to be detachable therefrom.

* further regarding claim 5, a detachable storage device and/or writes a part of the record datum or an entire record datum to a detachable storage device.

* further regarding claim 6, the record datum which is read from the detachable storage device by the storage controlling section.

Igarashi disclose the following:

* regarding claim 4, wherein the liquid drop ejecting head device is provided in the liquid drop ejecting device so as to be detachable therefrom (para 0257 & 0280, fig 2) for the purpose of attaching or detaching other storage componets/devices.

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* further regarding claims 5 & 6, a detachable storage device (para 0257 & 0280, fig 2) for the purpose of attaching or detaching other storage componets/devices.

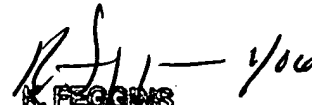
It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize a detachable liquid drop ejecting head and a detachable storage device for the purpose of attaching or detaching other componets/devices.

Communication With The USPTO

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talbott Dave can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


K. FEGGINS
PRIMARY EXAMINER